REMARKS

STATUS OF THE CLAIMS

In accordance with the foregoing, claims 1 and 6 have been amended. New claim 29 has been added. Claims 1-4, 6 and 29 are pending and under consideration.

No new matter is being presented, and approval of the amended claims is respectfully requested.

REJECTIONS OF CLAIMS 1, 3 AND 4 UNDER 35 U.S.C. §102(e) AS BEING ANTICIPATED BY WOLF (U.S. PATENT NO. 6,741,812)

The rejections of claims 1, 3 and 4 are respectfully traversed and reconsideration is requested.

Wolf is characterized by allocating one or a plurality of wavelengths that is multiplexed by WDM in order to synchronize between nodes in a WDM system. In contrast, embodiments of the present invention are characterized in that the reference signal distributing section other than the multiplexing section, distributes the received synchronous signal to each of the signal conversion apparatuses which converts optical signals multiplexed by the WDM and having different wavelengths.

A key difference between embodiments of the present invention and Wolf is that Wolf performs the distribution between the signal conversion apparatus and the reference signal receiving section through the wavelength-multiplexing transmission lines, whereas embodiments of the present invention perform the distribution through the optical transmission lines. Accordingly, independent claim 1 is amended herein to recite a reference signal distributing section distributing the received reference optical signal to all or a part of said plurality of signal conversion apparatuses through optical transmission lines respectively formed between each of the plurality of signal conversion apparatuses and the reference signal distributing section.

Further, in the Response to Arguments, on pages 5-6, item 5, of the Action, the Examiner states that Wolf discloses distributing the received reference optical signal to all or a part of said plurality of signal conversion apparatuses through transmission lines respectively formed between each of the plurality of signal conversion apparatuses and the reference signal distributing section (citing Wolf, column 2, lines 3-8).

The Examiner further states that Wolf discloses that the receive-side sync-wavelength signal conversion apparatus provides the received sync signal to "all interface units" of the network elements receiving the sync wavelength. The Examiner states that this is disclosure of parallel distribution of the sync signal to the plural signal conversion apparatuses (citing Wolf,

column 2, lines 3-8).

However, Applicants respectfully disagree with the Examiner's understanding of Wolf. The portion of Wolf cited by the Examiner merely states that the second network elements synchronizes itself via the interface unit assigned to the first wavelength. "[T]he synchronization clock, which corresponds to a bit-rate clock, is used for *all interface units* of the second network element." (emphasis added). (See Wolf, column 2, lines 6-8). Therefore, the phrase "all interface units", cited by the Examiner, refers to the interface units *of the second network element*, and does not refer to all of the plural signal conversion apparatuses.

In fact, Wolf merely discloses a synchronous digital communications system (such as SDH and SONET) formed by a plurality of network elements. Of these plural network elements, the first network element sends a reference clock (used for synchronizing) to the second network element via the WDM transmission line connected to the local station. The reference clock here is sent as an optical signal of the first wavelength. The second network element sends the reference clock to the third network element via the WDM transmission line connected to the local station. The reference clock here is sent as an optical signal of the second wavelength. The third network element, and others thereafter, each send the reference clock to the next network element via the WDM transmission line connected to the local station. Thus, the reference clocks are *serially* distributed in sequence, as optical signals of unique wavelengths.

Wolf does not teach or even suggest distributing the received reference optical signal *in parallel* to all or a part of said plurality of signal conversion apparatuses through optical transmission lines respectively formed between each of the plurality of signal conversion apparatuses and the reference signal distributing section.

Therefore, it is respectfully submitted that independent claim 1, as amended, patentably distinguishes over the prior art.

Claims 3 and 4 depend from amended independent claim 1 and inherit the patentable recitations thereof. Thus, it is further submitted that claims 3 and 4 also patentably distinguish over the prior art.

REJECTIONS OF CLAIMS 2 AND 6 FOR OBVIOUSNESS UNDER 35 U.S.C. §103(a) AS BEING UNPATENTABLE OVER WOLF IN VIEW OF ENDRIZ ET AL. (U.S. PATENT NO. 5,657,153)

The rejections of claims 2 and 6 are respectfully traversed and reconsideration is requested.

Claim 2 depends from independent claim 1 which, as stated above, patentably distinguishes over the prior art.

Independent claim 6, as amended, recites similar functional recitations to those of amended independent claim 1 and, thus, it is respectfully submitted that claim 6 patentably distinguishes over Wolf for at least the reasons provided above for independent claim 1.

Furthermore, Endriz et al. is merely cited as disclosing an amplifier for a WDM system where a signal is converted from electrical to optical and then wavelength multiplexed as part of an amplifier pump signal, and demultiplexed at the received end, to provide communication using the amplifier pump signal. It is submitted, however, that Endriz et al. fails to teach or suggest the features of amended independent claims 1 and 6, described above.

Thus, it is respectfully submitted that claims 2 and 6 patentably distinguish over the prior art.

NEW INDEPENDENT CLAIM 29

New independent claim 29 recites:

> distributing the received reference optical signal in parallel to all or a part of said plurality of signal conversion apparatuses through optical transmission lines respectively formed between each of the plurality of signal conversion apparatuses and the reference signal distributing section.

Therefore, it is respectfully submitted that new independent claim 29 patentably distinguishes over the prior art for at least the reasons provided above for amended independent claims 1 and 6.

CONCLUSION

In accordance with the foregoing, it is respectfully submitted that all outstanding objections and rejections have been overcome and/or rendered moot. Further, all pending claims patentably distinguish over the prior art. There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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